AMENDMENTS TO THE CLAIMS:

Please cancel Claims 1-19. Please add new Claims 20-42. The following is a complete listing of all pending claims:

1-19. (canceled)

20. (new) A method of hydrolyzing a cyanohydrin to its corresponding α-hydroxycarboxylic acid in a reaction mixture comprising:

the cyanohydrin;

water;

at least one mineral acid that catalyzes the hydrolysis; and

at least one hydrocarbon solvent;

wherein the reaction mixture comprises less than 10% by weight of an organic solvent other than the at least one hydrocarbon solvent.

21. (new) The method of claim 20, wherein the reaction mixture comprises less than 5% by weight of an organic solvent other than the at least one hydrocarbon solvent.

22. (new) The method of claim 20, wherein the amount of water in the reaction mixture ranges from 7 equivalents to 50 equivalents relative to the cyanohydrin.

23. (new) The method of claim 20, wherein the amount of water in the reaction mixture ranges from 10 equivalents to 40 equivalents relative to the cyanohydrin.

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24. (new) The method of claim 20, wherein the amount of the at least one mineral acid in the reaction mixture ranges from 1.5 equivalents to 10 equivalents relative to the cyanohydrin.

25. (new) The method of claim 20, wherein the amount of the at least one mineral acid in the reaction mixture ranges from 2 equivalents to 7 equivalents relative to the cyanohydrin.

26. (new) The method of claim 20, wherein the at least one mineral acid is selected from hydrochloric acid, sulfuric acid, boracic acid, phosphoric acid, and perchloric acid.

27. (new) The method of claim 20, wherein the at least one hydrocarbon solvent is selected from a saturated or unsaturated linear or branched chain hydrocarbon comprising 5 to 16 carbon atoms, a saturated or unsaturated cyclic hydrocarbon with or without a side chain comprising 6 to 16 carbon atoms, and a saturated or unsaturated linear or branched chain hydrocarbon substituted with a cyclic hydrocarbon comprising 5 to 16 carbon atoms.

28. (new) The method of claim 20, wherein the at least one hydrocarbon solvent comprises an aromatic hydrocarbon comprising 6 to 16 carbon atoms.

29. (new) The method of claim 28, wherein the aromatic hydrocarbon is selected from benzene, toluene, and xylene.

30. (new) The method of claim 20, wherein the maximum temperature of the hydrolysis reaction ranges from 40 °C to 90 °C.

31. (new) The method of claim 20, wherein the maximum temperature of the hydrolysis reaction ranges from 50 °C to 80 °C.

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32. (new) The method of claim 20, further comprising separating and removing the hydrocarbon solvent phase from the reaction mixture following the hydrolysis reaction.

33. (new) A method of hydrolyzing a cyanohydrin to its corresponding α-hydroxycarboxylic acid in a reaction mixture comprising:

the cyanohydrin;

water wherein the amount of water comprising the reaction mixture ranges from 10 equivalents to 40 equivalents relative to the cyanohydrin;

at least one mineral acid selected from hydrochloric acid, sulfuric acid, boracic acid, phosphoric acid, and perchloric acid, wherein the amount of the at least one mineral acid in the reaction mixture ranges from 2 equivalents to 7 equivalents relative to the cyanohydrin; and

at least one aromatic solvent selected from benzene, toluene, and xylene;

wherein the reaction mixture comprises less than 5% by weight of an organic solvent other than the hydrocarbon solvent, and

wherein the maximum temperature of the hydrolysis reaction ranges from 50 °C to 80 °C.

34. (new) A method of crystallizing optically active α-hydroxycarboxylic acid in an aqueous solution comprising:

suspending the optically active α-hydroxycarboxylic acid in an aqueous solution; and

cooling the aqueous solution to a temperature of less than 30 °C at a rate of 0.5 °C/min or less, to produce crystalline optically active α-hydroxycarboxylic acid.

35. (new) The method of claim 34, wherein the aqueous solution comprises at least one non-miscible organic solvent.

36. (new) The method of claim 35, wherein the at least one non-miscible organic solvent comprises at least one hydrocarbon solvent.

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37. (new) The method of claim 36, wherein the at least one hydrocarbon solvent is selected from benzene, toluene, o-xylene, m-xylene, p-xylene, n-hexane, n-heptane, and n-octane.

38. (new) The method of claim 35, wherein the ratio of the volume of the aqueous solution to the volume of the non-miscible organic solvent ranges from 1 : 0.05 to 1 : 1.

39. (new) The method of claim 34, wherein the crystalline optically active α-hydroxycarboxylic acid exhibits a packing density of at least 0.5 g/cm^3.

40. (new) The method of claim 34, wherein the crystalline optically active α-hydroxycarboxylic acid exhibits a packing density of at least 0.6 g/cm^3.

41. (new) The method of claim 34, wherein the optically active α-hydroxycarboxylic acid is produced according to the method of claim 20.

42. (new) The method of claim 34, wherein the optically active α-hydroxycarboxylic acid is produced according to the method of claim 33.

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